Amendment under 37 C.F.R. §1.111 Attorney Docket No.: 052033

Application No.: 10/522,236 Art Unit: 2624

AMENDMENTS TO THE <u>CLAIMS</u>

This listing of claims replaces all prior versions of claims in the application.

Claim 1 (Currently Amended): An image recognition apparatus for recognizing

movements of players matched against each other between domains partitioned with such an

obstacle as net in a sport match or game from contents including a television program being

telecasted to show the sport match or game, an image material in an uncompleted state for

broadcasting and contents recorded in such a recording medium as a VTR, the image recognition

apparatus comprising:

a score information obtaining section configured to obtain obtaining score information

indicative of scores of the respective players which vary as the sport match or game proceeds;

a play event information obtaining section configured to obtain obtaining and recognize

recognizing play event information including characteristic movements of each of the players

from picture information included in the contents, the picture information containing images of

the obstacle and the players, and the score information displayed on a screen; and

an image substance recognizing section configured to make making a comparison

between a score information item obtained immediately before a point in time of generation of

the play event information and a score information item obtained immediately after the point in

time and make reference to a result brought by the play event information, thereby recognizing a

substance of an image provided by the play event information.

- 2 -

Amendment under 37 C.F.R. §1.111 Attorney Docket No.: 052033

Application No.: 10/522,236

Art Unit: 2624

Claim 2 (Currently Amended): The image recognition apparatus according to claim 1,

wherein the score information obtaining section is configured to obtain obtains the score

information from at least one of the picture information included in the contents, sound

information including commentary voice of a commentator, and data information transmitted as

multiplexed on radio waves during broadcasting.

Claim 3 (Currently Amended): The image recognition apparatus according to claim 1,

further comprising: a domain element extracting section configured to extract extracting from the

picture information facility information including information on the obstacle, information on the

domains and information on boundary lines between the domains and an area outside the

domains, player's position information indicative of a player's position, and instrument

information on an instrument moving between the domains to serve as an object of score count in

the sport match or game; rule information storage section configured to store storing rule

information on the sport match or game; and basic movement storage section configured to store

storing basic movement information on players' characteristic movements generalized in a sport

of concern, wherein the play event information obtaining section includes a play event

information determining section configured to determine determining a play event information

item on a play event characteristic of each of the players included in the picture information as

the play event information based on domain elements extracted from the picture information, the

rule information, and the basic movement information stored in the basic movement information

storage section.

- 3 -

Amendment under 37 C.F.R. §1.111 Attorney Docket No.: 052033

Application No.: 10/522,236

Art Unit: 2624

Claim 4 (Original): The image recognition apparatus according to claim 3, wherein the

player's position information is position information indicative of a domain containing each of

the players and the instrument constantly held and used by the player.

Claim 5 (Currently Amended): The image recognition apparatus according to claim 3,

wherein the domain element extracting section is configured to extract extracts the player's

position information from the picture information based on the facility information extracted by

the domain element extracting section.

Claim 6 (Currently Amended): The image recognition apparatus according to claim 3,

wherein the domain element extracting section is configured to extract extracts the instrument

information from the picture information based on the facility information and the player's

position information extracted by the domain element extracting section.

Claim 7 (Currently Amended): The image recognition apparatus according to claim 3,

wherein the play event information obtaining section includes a play event index information

output section configured to output outputting plural play event information items determined by

the play event information determining section as arranged in a time sequence.

- 4 -

Amendment under 37 C.F.R. §1.111

Attorney Docket No.: 052033

Art Unit: 2624

Application No.: 10/522,236

Claim 8 (Currently Amended): The image recognition apparatus according to claim 7,

wherein the play event index information output section is configured to output outputs the play

event information items together with instrument information items in a time sequence.

Claim 9 (Canceled)

Claim 10 (Currently Amended): A computer readable medium encoded with an image

recognition program such that when executed, the image recognition program causes an image

recognition apparatus to operate to recognize movements of players matched against each other

between domains partitioned with such an obstacle as net in a sport match or game from contents

including a television program being telecasted to show the sport match or game, an image

material in an uncompleted state for broadcasting and contents recorded in such a recording

medium as a VTR, the image recognition program being configured to cause causing the image

recognition apparatus to function as:

a score information obtaining means configured to obtain obtaining score information

indicative of scores of the respective players which vary as the sport match or game proceeds;

a play event information obtaining means configured to obtain obtaining and recognize

recognizing play event information including characteristic movements of each of the players

from picture information included in the contents, the picture information containing images of

the obstacle and the players, and the score information displayed on a screen; and

- 5 -

Amendment under 37 C.F.R. §1.111

Application No.: 10/522,236

Art Unit: 2624

Attorney Docket No.: 052033

an image substance recognizing means configured to make making a comparison between

a score information item obtained immediately before a point in time of generation of the play

event information and a score information item obtained immediately after the point in time and

make reference to a result brought by the play event information, thereby recognizing image

contents of the play event information.

- 6 -